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THE V-22 OSPREY: PHOENIX OR ALBATROSS?

BY

Lieutenant Colonel Stephen T. Johnson
United States Marine Corps



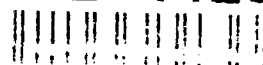
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THE V-22 OSPREY: PHOENIX OR ALBATROSS?

AN INDIVIDUAL STUDY PROJECT

by

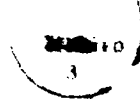
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ABSTRACT

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Any debate about national security and military strategies becomes strident and tense when the subject of "interest groups" is introduced. Interest groups are regarded by many as sinister or troublesome entities bent on group satisfaction even at the expense of the greater good of the nation.

The idea that elements as important as national security or military strategy could be materially influenced by the vagaries of interest groups is unacceptable to many military leaders. However, regardless of existing sensibilities, interest groups are a fact of American life. In many cases, such as in defense procurement, interest groups directly affect military decisions and concomitantly, they contribute to the definition of our national military strategy.

This paper examines how interest groups exercise their power and influence through mechanisms like the "iron triangle of defense" and political action committees (PACs). Through a case study of the V-22 Osprey, the paper will analyze whether defense procurement decisions are simply obedient responses to direct interest group stimuli, or whether they are, in fact, rational decisions which have merely emerged from the synthesis of conflicting, contrasting, and irrational interests that routinely bombard the national political and military leadership. The paper also considers the importance of interest groups and PACs in the future and the relative increase or diminution of their influence given anticipated force reductions.

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INTRODUCTION

One of the most perplexing issues facing political and military leaders during the latter years of the Cold War was how to measure the gap between national military strategy's ends and means. Although the central theme of our national military strategy was deterrence of the Soviet threat, the national leadership never reached a clear consensus on "how much was enough" when it came to determining the necessary amount of force structure growth, procurement, and technological development. Because no one could adequately determine "how much was enough," the size and capability of the U.S. military continued to grow--prodded by the following factors:¹

- Existing and emerging political coalitions understood it was politically undesirable and dangerous to oppose anything (like military growth) that contained the Soviet Union or the spread of communism.

- New technological advances were deployed immediately after they were developed because the Soviets either already had a similar item in the field or they could not be far behind in fielding one.

- The defense budget, particularly during the 1980s, grew at a rate which supported real growth and military expansion.

- Defense industry interest groups, standing to gain from a growing military, maintained pressure on the political and military leadership to expand, develop, and procure military capabilities.

Although the Cold War has passed, the leadership in the country is still perplexed about "how much is enough," especially now that the threat is more difficult to gauge. The ebbing of the U.S. military in size and capability is influenced by several factors. There is no obvious, discernable threat on which to focus; new technological advances are terribly expensive (e.g., Sea Wolf, B-2 bomber); and entitlements are devouring the federal budget. The defense budget is being reduced and provides only negative real growth for defense, making across-the-board military expansion impossible.

Whether military budgets are waxing or waning, defense interest groups appear adaptable and able to influence policies which help define our national military strategy. For example, defense procurement is an area in which millions of individual Americans have intense interest. A large part of our military strategy is based on what we procure in the way of aircraft carriers, tanks, airplanes, munitions, etc. But what we procure not only affects our strategy, it affects those interest groups involved in various ways with military procurement. For this reason, interest groups directly help to shape the scope of our

military procurement and concomitantly, they contribute to the definition of our national military strategy.

This paper examines how interest groups exercise their power and influence through mechanisms like the "iron triangle of defense" and political action committees (PACs). Through a case study of the V-22 Osprey, the paper analyzes whether defense procurement decisions are simply obedient responses to direct interest group stimuli, or whether they are rational decisions which have merely emerged from the synthesis of conflicting, contrasting, and irrational interests that routinely bombard the political and military leadership of the nation. The paper also considers the importance of interest groups and PACs in the future and the relative increase or diminution of their influence given the anticipated force reductions.

BACKGROUND

Interest groups are defined as groups with shared attitudes which make claims on other groups in society by working through government institutions.² The interest groups of concern in this paper are those which work through government institutions to influence national defense policies pertaining to the procurement of military equipment. Before examining those interest groups, it is worthwhile to introduce the terms "iron triangle" and "political action committees."

Iron Triangle

Interest groups are analogous to an army. An army maximizes its combat power by massing its diverse elements at a decisive point to achieve victory in battle. Similarly, interest groups maximize their "combat power" by focusing their influence at the point which will most likely allow them to satisfy or achieve their interests. That point, or focus of effort, is usually the national policy-making apparatus of the federal government.

Moreover, if interest groups properly use their influence, they can not only attain their goals, but also they can become a participant in the political policy-making process on which they focus. This ensures that their interests are more readily fused to emerging decisions and policies. Interest groups which have accomplished this are powerful enough to be members of what Gordon Adams describes as a "policy sub-government."³

The defense industry in this nation is an example of a major interest group which has become part of a policy sub-government. Its partners in the sub-government are the various agencies of the Department of Defense (DOD) and members of Congress who have personal defense related interests or who are members of key defense oriented committees. The interests of these members of the "sub-government" are collectively bound in what some refer to as the "iron triangle" of defense.⁴

The iron triangle concept is not new. The nation's citizens have been reminded frequently by influential people about the less than desirable effects that powerful iron triangles might exert on the nation. In the 1950s, C. Wright Mills was one of the first influential writers to address the concept. Among his theoretical precepts was the "theory of balance." He said that there exists in the United States "a set of balances and compromises...among Congressional leaders, the executive branch and various pressure groups" which form small, elite groups possessing the real power in America.⁵

American presidents are also fond of blaming "special interests" for evils in society or problems which beset their presidency. When President Eisenhower cautioned the nation to beware of the military-industrial complex, he was referring to the existence of a potentially dangerous "symbiotic partnership of military services, defense contractors, and members of Congress."⁶ In a similar vein, President Carter stated that exploitation by special interests caused the "fragmentation of power and decision making" in his administration.⁷ Much of government reorganization effort during the Nixon years was designed to gain control over a bureaucracy the administration thought was dominated by interest groups.⁸ Even President Reagan cautioned Americans against "iron triangles and special interests," suggesting that an iron triangle formed by the media, special interest groups, and Congress was partly responsible for

the federal deficit increase during his tenure in office.⁹

Although the general public generally views iron triangles with distrust and skepticism, iron triangles in defense are probably the most visible and most widely criticized of all. They are presumably the most prominent because of the importance of national security policies, the scope of defense procurement, and the vast sums of money allocated in the federal budget for defense.

Political Action Committees

A second element of this paper which requires introductory explanation is political action committees (PAC). A basic understanding of PACs is germane because they are an essential ingredient in political power in this country. PACs provide millions of dollars of individual contributor money to the campaign funds of candidates seeking election to federal office. Without that funding, members of Congress have an extremely difficult time in being elected. Without being elected, members cannot exercise political power and influence.

Political power and influence are what people hope to achieve when they contribute money to PACs. PACs are groupings of people who have similar interests in certain business, labor, or ideological issues. They support their interests by making

voluntary political contributions to various favored federal congressional candidates in the hopes that their interest will become one of the candidate's interests when he/she is elected.

PACs are an outgrowth of the relationship that has long existed between corporate America and the federal government. During World War I, business leaders were called to Washington to provide advice about industrial support for the war effort. Business leaders were sought during the Depression and again during World War II to advise the president on a host of economic and military policy issues. With 70 years of experience behind it, corporate America has had ample time to develop practices and structures (i.e., PACs) which can influence executive and congressional policy makers. Gordon Adams suggests that the relationship between government and business is an "intimate" one. He points out that the federal government not only regulates the activities of business, but it provides the specifications, and the markets, for many of the items business creates.¹⁰

In 1971, Congress enacted the Federal Election Control Act (FECA) to control how PACs manage political candidate contributions. A 1974 amendment refined the Act to its current status which permits individual donors to give \$1,000 per election per candidate with the total to all candidates not to exceed \$25,000 in any one year. The Act allows PACs to give up

to \$5,000 per election per candidate with no limit on the total amount of donations. It also authorized unions and businesses with government contracts to form PACs.¹¹ The phenomenal corporate PAC growth spurred by the 1974 amendment is summarized in the chart below:¹²

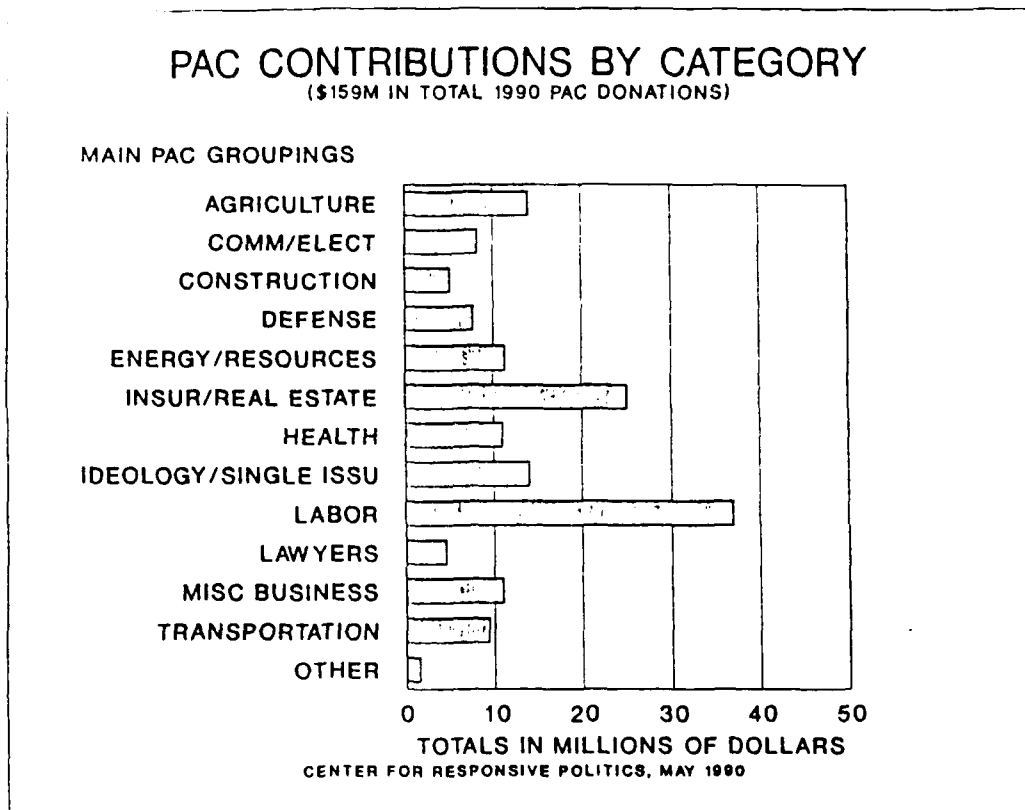
Figure 1
PAC Growth Since 1974

<u>YEAR</u>	<u>NUMBER OF PACS</u>	<u>PERCENT INCREASE</u>	<u>TOTAL PAC GIFTS TO CONGRESSIONAL CANDIDATES</u>
1974	608	-	\$ 12.5 MILLION
1978	1,653	63%	\$ 34.1 MILLION
1982	3,371	51%	\$ 83.6 MILLION
1986	4,157	19%	\$132.2 MILLION
1990	4,172	.04%	\$159.3 MILLION

PAC Functioning

The manner in which PACs decide how to apportion their funds is fundamental to understanding interest group functioning in the defense procurement area. PAC analysts organize PACs in three main groups: business (the largest type), labor, and ideological interests. In 1990, the largest source of funds in the business group came from the financial-insurance-real estate interests. (Business PACs can be subdivided into ten categories for clarity. See Figure 1. below.) Labor PACs gave only minor contributions by comparison to business, and the ideological/single-issue PACs focused their attention on issues like gun control, abortion, etc.¹³

Figure 2



Although all 4,172 PACs do not function alike, it is possible to see how PACs function by looking at a representative example. This study examines the PAC belonging to the Boeing company. Over 80 percent of Boeing's business is in the commercial aviation manufacturing industry but it also manufactures military helicopters and the V-22 Osprey tiltrotor aircraft. The company is included in the subdivision of Defense PACs where in 1990 it ranked 20th with \$275,000 in donations. This PAC is representative of many business PACs with defense interests. It provides several useful examples of how a company

(or interest group) apportions the funds in its PAC to the available political candidates.¹⁴

PACs choose recipients who share common opinions and perspectives with the members of the PAC and the business it represents. According to Mr. Bob Lange, manager of congressional affairs for Boeing, his company annually apportions donations based on "the Company and the candidate having similar philosophies" and on the candidate's past support of Boeing interests.¹⁵ Lange says his company is bi-partisan in its PAC donation philosophy, a fact demonstrated in the last six election cycles when Boeing has supported Democratic and Republican candidates nearly equally.

PACs can donate to a certain candidate simply because the candidate asks for the donation. According to Steven F. Stockmeyer, a former vice president of the National Association of Business PACs, PAC money is often given because it is solicited by members of Congress and their staffs. PACs are merely being "responsive." He says, "They (PACs) get dozens of invitations a week and decide which ones they just have to respond to."¹⁶ Mr. Lange confirmed that this is a common occurrence for his company.

The national geographical location of candidates is also a consideration in how company PACs apportion their funds. Since Boeing has the majority of its facilities in Seattle, Washington,

and Philadelphia, Pennsylvania, the PAC contributes faithfully to the Congressional representatives of the districts surrounding the Boeing facilities. The PAC also gives to the respective Senatorial candidates from those two states. Federal Election Commission data for the past 12 years (six election cycles) indicates that Boeing has contributed \$182,000 (out of a total \$1.29 million donated nationally to federal candidates) to Senators and Congressional representatives of 11 districts (six in Washington and five in Pennsylvania) in the two states. This represents 14 percent of Boeing's PAC dollars to assist campaigns for 2 percent of the Congress. In those two states during the 12 year period, 49 percent of Boeing's Pennsylvania state-specific donations went to five of 23 districts; in Washington, 80 percent of the state specific funds went to the six districts associated with the company.

One of the most widely advanced theories about how PACs distribute their money indicates that they give it to incumbents. Newspaper columnist John L. Jackley calls PAC donations "the Incumbent Protection Plan" for the House of Representatives. He says that the House "is a place where people come to stay"-- a place where benefits and power have become more important to elected officials than the responsibilities to which the officials were called.¹⁷ PAC givers are comfortable with the performance of incumbents and the incumbents know how to satisfy the voters. Comprehensive research by the Center for Responsive

Politics provides convincing evidence confirming this theory. PACs contributed a total of \$159.3 million to federal candidates and incumbents in the 1989-1990 election cycle. Of that total amount, 79.1 percent went to incumbents, 10.2 percent to challengers, and 10.7 percent to candidates in open races. Selected summary data is shown below:¹⁸

- 1989 - 1990: House of Representatives
 - 96 percent of incumbents won reelection-(390 of 420)
 - \$407,556 - average cost of winning campaign
 - \$209,581 - average amount winners received from PACs
 - 51 percent of winners' total revenues came from PACs
- 1989 - 1990: Senate
 - 97 percent of incumbents won reelection - (31 of 32)
 - \$3.8 million - average cost of winning campaign
 - \$978,000 - average amount winners received from PACs
 - 26 percent of winners' total revenues came from PACs

The Boeing PAC donation record for the past 12 years indicates that the company is committed to supporting those candidates that it knows to be "tried and true." It is also interesting to note that when important district votes were expected to be close, Boeing "hedged its bet" on several occasions by contributing to both incumbents and challengers. For example, in the 1987-1988 election cycle there were two close races in the third and seventh districts in Washington. Boeing donated to all four candidates but gave the two incumbents each \$1,000 more than the challengers.¹⁹

Finally, while incumbent district candidates have a

reelection advantage, a 15-month study of PAC donations leading up to the 1990 elections demonstrated that "PACs consistently gave the most to incumbents who serve on committees with jurisdiction over their interests."²⁰ PACs routinely base their donation strategy on which committee seat a candidate fills rather than on reasons of ideology or the geographical location of the candidate.²¹ In 1990, all 20 of the top Congressional recipients of defense PAC funds were incumbents. Among the top ten House and Senate members who received the most defense PAC contributions, all but one sat on defense-related committees, 12 held seats on the Armed Services committees, and seven others sat on the Defense Appropriations subcommittees.²²

Boeing's donation pattern appears to support this fact. For example, Democratic Senators Nunn, Byrd, Hollings, and Inouye all assumed chairmanships of key defense-related committees (Senate Committees on Armed Services (SASC); Senate Appropriations Committee (SAC); Senate Commerce, Space, and Transportation Committee; and Defense subcommittee of the SAC respectively) in either the 100th or the 101st Congress. All received Boeing PAC donations after their appointments. None had received Boeing donations before appointment to their key position. In the House of Representatives, Congressmen Aspin, Dingell, and Fuqua have become regular recipients of Boeing donations since assuming control of the House Armed Services Committee (HASC), the Energy and Commerce Committee, and the Science and Technology Committee

respectively. None had received a Boeing donation prior to their key assignments although all had been serving in the House. Figure two below illustrates the relationship between key Congressional chairmen and Boeing's PAC donations over a ten-year period.²³

Figure 3

COMMITTEE CHAIRMANSHIP/BOEING CONTRIBUTIONS

COMMITTEE	CONGRESSIONAL SESSION					
	97TH	98TH	99TH	100TH	101ST	102D
SASC	TOWER (R) TX -0-	TOWER \$1000	GOLDWATER (R) AZ -0-	NUNN (D) GA -0-	NUNN \$2000	NUNN -0-
SAC	HATFIELD (R) OR -0-	HATFIELD \$2000	HATFIELD -0-	STENNIS (D)MS -0-	BYRD (D)WV -0-	BYRD \$1000
SAC(D)	STEVENS (R) AK -0-	STEVENS \$4000	STEVENS -0-	STENNIS (D) MS -0-	INOUE (D)HI -0-	INOUE \$2000
HASC	PRICE (D) IL \$500	PRICE \$500	ASPIN (D) WI \$500	ASPIN \$4000	ASPIN \$3000	ASPIN \$1000
HAC	WHITTEN (D) MS \$500	WHITTEN \$500	WHITTEN \$2000	WHITTEN \$1000	WHITTEN \$1000	WHITTEN -0-
HAC(D)	ADDABBO (D) NY \$1000	ADDABBO \$2800	ADDABBO \$1050	CHAPPELL D(FL) \$5000	MURTHA D(PA) \$5000	MURTHA \$2000

DATA FROM FEDERAL ELECTION COMMISSION, JAN 1992

From the available data it is difficult to determine if PAC enthusiasm for supporting a candidate subsides when the candidate loses a key committee position. In the Boeing PAC data, it is of interest to note that Senator Packwood of Oregon received no Boeing PAC donations prior to his 1981 appointment as chairman of the Commerce, Science, and Transportation Committee. He received

a contribution in the 1985-1986 cycle, lost his chairmanship the same year, and has not received any donation from Boeing since. He is still in the Senate and on the Commerce, Science, and Transportation Committee.²⁴

Because of their close association with the political process, PACs are periodically the targets of blustering reform attempts. PACs come under fire for the role they play in campaign funding and because they are directly associated with "special interests." For example, there were major Congressional campaign reform attempts in 1990 with both political parties proposing numerous amendments which would have made significant changes to PACs. Republicans favored a complete ban of PACs while Senate Democrats unveiled a plan to replace most special-interest campaign funding with public financing of campaigns.²⁵ Even President Bush, in his 29 January 1991 State of the Union address, called for the elimination of PACs and a return to the "ideal of the citizen politician who comes to serve but not to stay."

The entire 1990 Congressional campaign-financing effort was a tempest in a teapot. House and Senate versions of the final bill exemplified how divergent Congress is on the issue. Although this proposed legislation died with the second session of the 100th Congress, it illustrates two important points about PACs. First, they incite strident, emotional debate among

political leaders who desperately want to avoid being considered beholden to interest groups. Second, despite aggressive rhetoric against PACs and for campaign financing reform, the political leadership does not yet have the resolve to change this system. Most still depend on PAC money for reelection.

V-22 Osprey Background

The Bell-Boeing V-22 Osprey exemplifies tiltrotor airplane technology. The twin-engine, tiltrotor aircraft is a "hybrid helicopter" that can undergo three overlapping phases of flight--helicopter flight, transitional flight, and airplane flight.²⁶ It combines the flexibility and versatility of a helicopter with the speed and maneuverability of an airplane.

The V-22 in its present form is the result of tiltrotor technology first flight tested in 1958 by Bell Helicopters. Long-standing service interest in this technology is apparent in the Army and Navy joint sponsorship of the second generation Bell XV-15 development.²⁷ As a result of the XV-15 program success, and based on emerging requirements of all the services, DOD created a joint service program in December 1981 entitled the Joint Services Advanced Vertical Lift Aircraft Development (JVX) Program.²⁸ The U.S. Army was designated as the executive agent for the JVX program.

Initially, this was a model joint procurement venture in an era when "jointness" among the services was yet unfashionable. There were requirements from all the services for an advanced vertical-lift program. By 1984, DOD provided to the Senate Appropriations Committee (SAC) a list which showed 26 potential future missions for JVX.²⁹ The Marines needed a replacement for the aging CH-46 assault helicopter. The Army had a requirement for 231 aircraft for transport, medical evacuation, search and rescue (SAR), and logistic support while the Air Force needed 80 aircraft for special operations missions. The Navy had a hard requirement for 50 aircraft for SAR missions, but also seriously considered buying 300 of the aircraft for use in antisubmarine warfare (ASW).³⁰

It was in response to these requirements that the JVX program requested proposals from industry. In 1983, a corporate team of Bell Helicopter-Textron and Boeing-Vertol proposed a candidate concept for a tiltrotor propulsion system; the proposal was accepted and from that concept emerged the Bell-Boeing V-22 Osprey of today.

But there is a big difference between service interest in the R&D surrounding a new technology and service support for the development of that technology. Despite establishment of the JVX program and it being declared a "priority program" by the Service Secretaries in June 1982, the "spirit of jointness" did not last

long.³¹ Faced with competing priorities, the Army relinquished its executive agency status to the Navy in 1983 and, by 1984, the Army was supporting the JVX program with words only. The Army elected not to fund the JVX in its 1985 Program Objective Memorandum (POM) and the following year the Air Force cut its procurement requirement by 25 aircraft. The Navy also elected not to pursue an ASW variant. By 1986 the program had become one for which the Marines apparently had a lopsided requirement.³²

Figure 4
Comparison of Service JVX Requirements

<u>Service</u>	<u>Original Buy</u>	<u>Revised 1986 Buy</u>
USMC	552	552
USA	231	0
USN	350	50
USAF	<u>80</u>	<u>55</u>
TOTAL	1213	657

In the early stages of the JVX program when procurement requirement estimates exceeded 1,000 aircraft, the flyaway cost per aircraft was approximately \$21 million.³³ As procurement numbers declined and joint service ardor for the project cooled, the price tag for each aircraft rose. By 1986, the individual flyaway cost was estimated to be between \$28 million and \$32 million. (Flyaway costs are those associated with the aircraft itself--airframe, avionics, engines, etc. Procurement costs include the flyaway costs plus the overhead costs of the total program for collateral maintenance equipment, training, research

and development (R&D), etc. Some experts suggest that procurement costs could reach \$50-\$55 million per V-22 aircraft by the time the aircraft reaches production.)³⁴

The V-22 program hit further hard times when newly appointed Secretary of Defense Cheney canceled the program in 1989. There are a number of theories as to why Mr. Cheney terminated the program, the most logical being that he had to trim \$10 billion dollars from the fiscal year 1990 defense budget. The V-22 did not have a priority high enough to avoid being cut, given Bush administration priorities for such high visibility programs as Star Wars and the B-2 bomber.³⁵

In 1992, the V-22 project is still on the Pentagon hit list, having been unfunded in the President's Budget submission to the Congress. The Secretary of Defense continues to acknowledge that while he has no objection to the aircraft, he cannot justify spending \$35 million per copy under the current fiscally constrained conditions.

For its part, Congress continued stalwart support of the V-22 program in the fiscal year 1992 defense budget by authorizing \$790 million in new R&D funds. The money is to be spent on a Phase II Development Program to build three new production representative aircraft which will reflect the developmental improvements made from testing the first six V-22

models.³⁶

Congressional support for the program also exists because of significant civil/commercial V-22 applications which can produce important transportation and trade benefits for the nation. The future non-military benefits of the V-22 are gaining Congressional support and may ultimately be key in decoupling the V-22 from DOD budget restrictions. There are three principal advantages associated with civil tiltrotor programs.

First, tiltrotor aircraft have the potential to revolutionize air transportation in high density air traffic corridors, to ease airport congestion, and to link rural areas with the major air transportation system. Although just a concept in the U.S., island nations like Japan and Indonesia, with limited road networks, have already begun planning to use vertical-lift to solve transportation and limited ground/air-space problems. Tiltrotor technology will be a vital element of this expansion of transportation capabilities.³⁷

Trade opportunities with the rest of the world in civil tiltrotor aircraft are enormous. Aerospace officials recognize that civil tiltrotor technology is around the corner and that the company which captures the market first can anticipate sales of \$500 million per year for the next decade.³⁸ These kinds of sales would aid future efforts to balance U.S. imports and

exports.

Third, development of tiltrotor technology in the United States would provide an economic boost for the nation in terms of new jobs associated with a transportation industry that does not currently exist. Construction and new services (i.e., "vertiports", roads, training programs, etc.) associated with the development of civil tiltrotor programs will be needed by this nation's economy in the next century.

Although Secretary Cheney's duel with the Congress over the life of the V-22 program looks like a vendetta, his original decision appeared to many as a rational one. He was looking for a quick fix for the Pentagon budget; killing Pentagon procurement programs is a time-honored method of making such cuts. But the V-22 has not gone away as Mr. Cheney envisioned, largely because there are several agencies which do not consider the Secretary's decision rational nor in their best interests. The agencies involved--namely the Marine Corps, Boeing (contractor), and interested members of the Congress--formed an "iron triangle" which since 1989 has defied Mr. Cheney's efforts to end the V-22 program. The actions of this small iron triangle of defense demonstrate how interest groups can and do influence the policies related to our national defense.

THE PROCESS

The process through which the iron triangle of V-22 members collectively and individually support the aircraft is complex and has been underway for many years. The moves, counter-moves, and changing strategies of the members of the iron triangle have created an interesting and instructive example. From this example come several key issues which are germane to understanding how iron triangles work.

- Who are the principal spokesmen for the members of the V-22 iron triangle?

1. The Marine Corps officially communicates its interests through one person, its Commandant. He speaks for the Corps on issues relative to the V-22. All other Marines who publicly address the V-22 do so in a manner consistent with the Commandant's policies.

In the nation's capital, the Marine Corps also communicates its interests unofficially through an undefined group of ardent supporters of the Marine Corps' role in national defense issues.³⁹ Included in the group are former Marines who are now members of Congress or Congressional staff members; retired, senior Marines who reside and work in the Washington area; and various influential individuals who simply consider themselves

friends of the Marine Corps. This body has no formal organization and no specific agenda other than ensuring that Marine Corps interests are represented in the Congress and the Pentagon. It is an informal--but very influential--interest group.

As the principal spokesman for all Marine Corps interests, the Commandant finds himself in a sensitive position for two main reasons. First, in matters pertaining to defense he must support the decisions of the President and Secretary of Defense, even when he does not personally or professionally approve of those decisions. For example, the Marine Corps has officially supported recent President's Budget submissions which did not contain funding for the V-22. The only time that the Commandant, and other Marines who testify annually before Congress, can offer official, differing opinions about the aircraft is when they are specifically asked to do so by members of Congress during testimony sessions.

Second, the Commandant must be cautious in his relations with the unofficial group of supporters in Washington. He must carefully consider emerging opinions, respectfully consider long-standing loyalties, ensure that key members of this "interest group" are aware of his intent and concerns, and ensure that his relationship with the group does not place him at cross-purposes with Navy and Defense Department leadership. This interest group

can be enormously helpful to the Commandant. It can also place him in extremely compromising positions.

2. Like the Marine Corps, the contractor speaks with a unified voice on the V-22 with all company spokesmen espousing the company line. The principal spokesmen in the iron triangle are company lobbyists who keep Capitol Hill constituency informed about the program.⁴⁰

3. In the Congress, there is not one single spokesperson for the V-22 program. Those who have interests in nurturing the V-22 register that interest and support in several ways.

House and Senate committees speak for or against programs by alternately providing or withholding funds. In the case of the V-22, Congress has spoken emphatically on two occasions by appropriating funds for the Navy only for "the development, manufacture, and operational test" of the aircraft. Most recently, Congress authorized \$790 million to fill the fiscal year 1992-1993 V-22 funding void created when DOD cut the program. This most recent Congressional action indicates strong support and interest in V-22 in both houses--particularly in the Appropriations and Armed Services committees.

Other spokespersons for the V-22 can be found among those who, for various reasons, lend their names to the caucuses or

coalitions which support the aircraft. One such caucus is the Tiltrotor Technology Coalition (TTC) which currently numbers 125 House members and 20 Senators on its roles.⁴¹

Finally there are members who, because of their frequent or strong public support of the V-22, have become known as "strong supporters." Examples of those supporters are Congressman Curt Weldon, a Republican from the 7th Pennsylvania district (where Boeing Helicopter Division is located); Senators Arlen Specter, Republican from Pennsylvania, and John Glenn, Democrat from Ohio and former Marine aviator; and Congressman John Murtha, Democrat from Pennsylvania and also a former Marine.

- What are the principal interests in the V-22 of each element of the iron triangle?

1. The Marine Corps has three main interests. First, it critically needs a medium-lift replacement aircraft for the CH-46 helicopter which is in its 27th year of service. Second, the Corps wants a vertical-lift assault capability that will be effective well into the 21st century. The current family of helicopters in the U.S. inventory is at the "upper edge of the helicopter technology envelope." The V-22 embodies a technology which can lift the Corps into the 21st century.⁴² Finally, the Marine Corps is interested in preserving its reputation for successfully introducing and developing effective warfighting

innovations (e.g., amphibious vehicles, the vertical assault concept).

2. The contractor's principal interests are to gain a contract permitting it to build the V-22 and claim the major share of the \$30-40 billion that the military project would generate; to see the military version of the V-22 become reality and open the door to commercial development of the aircraft; to exploit the approximate five-year technological edge that the U.S. enjoys over Japanese, French, and German aircraft manufacturers of tiltrotor technology; and to keep the helicopter workforce of about 7,000 people employed.

3. Congress's interests are primarily in two areas, the first being military. Congress wants to see the V-22 development continue to a logical culminating point where a decision can be made to either commence full-scale production or cancel the military application of the program. Congress has provided sufficient funding to build and test three production representative V-22 models. Congressional staff members say that regardless of Secretary Cheney's motivation for terminating the program, his timing was not good.⁴³ Given the money already spent on the project (\$2.5 billion with nearly \$1.5 billion more to be spent this year), it made no sense to kill the program before the V-22's capabilities were fully explored.

Similarly, Congress is interested in seeing if the military applications of the aircraft can be exploited so that the more economically productive commercial and civilian aspects of the aircraft can be developed.⁴⁴ The civil and commercial development interests Congress because they will create jobs in this country and keep the U.S.-owned V-22 technology from migrating to a foreign nation.

- How do the members of the triangle provide mutual support for one another?

1. The Marine Corps has supported the contractor by standing by its decision that the V-22 is the best replacement option for the CH-46. Without unwavering service support for the project, no amount of Congressional committee interest or industry lobbying pressure would have kept the project alive over a prolonged period. Mr. Jean Reed, a military R&D analyst for the HASC, confirms this and emphasizes that the strong support Marines have invested in the V-22 over the years has been a crucial determinant in its existence today.⁴⁵

The Corps has also remained loyal to the contractor. Over time, the Marine Corps and the contractor have developed mutual respect for each other, largely based on the personalities intimately involved in the V-22 development process. This relationship has produced a binding loyalty that helps both

members of the V-22 triangle negotiate difficult times. Colonel James Schaefer, the V-22 project manager, believes that the project should continue in part because "we owe the contractor to see it through after all this time."⁴⁶

Marine Corps support for the Congress is found in the service's unwavering commitment to the project. This is a difficult road for the Marine Corps to travel because it is directly counter to the wishes of the Secretary of Defense. It puts the Marine Corps in the position of being the rally point for Congress in its dispute with the DOD on the V-22 issue--a very sensitive position for the smallest service to occupy.

2. The contractor supports the Marine Corps in two key ways. First, it manages the program as efficiently as possible, ensuring the program remains cost-effective and responsive to the needs of the service.

Second, the contractor executes an effective, informative lobbying, public relations, and advertising campaign which includes the following:

- Developing a grassroots campaign to encourage subcontractor and union support in creating awareness among elected officials about the V-22. For example, in 1990 Boeing briefed 93 of its subcontractors and 50 unions and provided them

with data about how to further the V-22 cause through political pressure and awareness. The company also provided mechanisms for organizing FAX-a-letter-to-Congress and letter-writing campaigns.⁴⁷

- Spreading the word about the V-22 also means that the company uses its influence to assist independent research groups placing articles in the more prestigious trade magazines. These articles gain wider recognition for the research group and give good exposure to the favorable aspects of the program-- something that benefits all concerned.⁴⁸

- Spending considerable amounts of money to advertize the V-22. (It should be remembered that the V-22 program is a very small part of the overall Boeing effort.) The advertising budget for the Osprey is not something that the company is willing to divulge. But judging from the amount of advertizing that Boeing does for the V-22 in Navy, Marine Corps, and aviation unique publications only, it must be a sizable sum.

Contractor support for the Congress is found in three main areas. First there is the constant barrage of information and updates the contractor provides interested Congressmen on the V-22 status. In 1990, the Boeing V-22 Congressional Support Action Plan included the following major actions:⁴⁹

- Issue Papers for members as required.
- Updated Briefing Books - 3X per year.
- Flight Test Status Videos - 3X per year.
- V-22 Demonstration - as required.
- Plant Visit Coordination - as required.
- Political Party Briefings - Jan - Apr 1991.

Second, Boeing supports selected members of Congress with campaign funds from its PAC. Finally, in 1990 the company formed the Tiltrotor Technology Coalition (TTC) and invited members of Congress to join. The TTC membership is comprised of congressmen and senators who desire to be numbered among those who support tiltrotor technology because of its likely contribution to the following areas: defense, commercial use, drug interdiction, emergency services, or trade. Belonging to the TTC is painless and benefits members in two key ways:⁵⁰

- Allows members who strongly support the V-22 to use the coalition as part of their credentials on the issue or as a forum from which to speak it.⁵¹

- Allows members who may oppose the V-22 for military purposes, but who do not want to alienate voters in their district, to claim membership in the TTC based on the aircraft's commercial or transportation value.

3. Congress has supported the Marine Corps and the contractor equally by keeping the project alive since 1989, the year Congress restored enough funds to continue V-22 development.

Further, it ordered the Secretary of Defense to conduct a cost effectiveness study of the V-22 versus the alternative DOD proposal for the Marines' medium-lift requirement (a combination of H-60 and CH-53E helicopters). In 1990, Congress closely scrutinized and gave public visibility to the results of the Institute for Defense Analysis (IDA) study on the V-22. In 1991, Congress budgeted \$790 million of new R&D funds to begin a V-22 Phase II Development Program. (IDA is the agency from which DOD commissioned an independent analysis of the V-22 per a 1990 Congressional order.)

Through the cooperative efforts of different committee chairmen, Congress has broadened the interest level in both houses for tiltrotor technology in general. Mr. David Clement, Minority Staff Director for the House Committee on Science, Space, and Technology, indicates that his committee has stayed impartial on the V-22 issue. However, hearings on the relative benefits of the aircraft to commerce and science have generated considerable support outside the military. He confirmed that there is growing concern about losing this technology to foreign nations. Moreover, concerns about the future of transportation in this country are causing many members to seriously consider the prospects of this aircraft.⁵²

Both the Marine Corps and the contractor are supported when members of Congress provide the opportunity for the Corps'

leadership to express its professional, candid opinions about the program. Congress understands that the military leadership must be afforded the opportunity to speak its mind, to keep things in perspective, and to vent frustrations officially. During Congressional testimony, Senators and Congressmen will phrase their questioning to allow military leaders the opportunity to set the record straight. General A. M. Gray (Marine Corps Commandant from 1987-1991) recognized those opportunities as the following excerpt from his 4 May 1989 testimony before the SASC illustrates:⁵³

Chairman NUNN. General Gray, let me just start with you. It seems to me what you are saying on the V-22 is that you believe Secretary Cheney made the best decision he could make based on faulty information. Am I hearing you correct on that?

General GRAY. No, based on the information he was given by learned people who have their right to believe that they are correct.

Chairman NUNN. But do you believe they were correct?

General GRAY. No, I do not. But I had my day in court. So apparently your Commandant was not persuasive enough...However, I am prepared, as I have done with the Secretary of Defense and others, to submit for the record my view on the cost benefits over the life of the program that I believe weigh very heavily in favor of the V-22...I do not know much about discounting and all those kinds of things...I am not from IBM or an organization like that. I do know that we made some very careful, well thought through decisions based upon extraordinary analysis....the V-22 is far superior as an assault helicopter/airplane to replace the CH-46.

Similarly, in his annual written report to Congress, the Marine Commandant can articulate his opinion (subject to the approval of the Secretaries of the Navy and Defense) as General

Gray did in his fiscal year 1990 report to Congress saying, "The MV-22 program is the most important advance in military aviation since the helicopter. It is my number one aviation priority."⁵⁴

CONCLUSIONS

I believe that there are a number of conclusions which can be drawn from an analysis of the V-22 program and its relationship to interest groups, defense iron triangles, and defense procurement in general. These conclusions, albeit not startling, are timely and worthy of review by those who are involved in the formulation of military strategy.

Representative of Future Controversy

In the future, defense budgets will be smaller and weapons procurement costs will grow significantly. The combination of these two factors will produce vigorous and controversial competition, not only among the military services, but also among interest groups which support alternative or competing systems. Analysis of the V-22 Osprey program is useful because it illustrates four examples of why defense procurement actions will be increasingly controversial in the future.

It is first of all an expensive program and grows more so

each year. If the V-22 reaches production, it will pinch funds from other DOD programs and probably hurt other non-DOD interests as well. Expensive programs like the V-22 will require the support, and the sacrifice, of a wide range of interests, particularly in Congress.

Second, the program engenders considerable emotion. The Commandant of the Marine Corps has been in an uncomfortable position with the Secretaries of the Navy and Defense over the issue, interest groups have entered both sides of the fray for various reasons, and each Congressional testimony season brings new twists to the conflict. The emotions have created a "beltway drama," the moves and countermoves of which now obscure the critical fact that the medium-lift helicopter of the Marine Corps is ready to fall out of the sky and there is no replacement for it. Emotional procurement issues in the future will be likely and peripheral elements of those issues should not be allowed to obscure important matters.

Another contentious area is that the V-22 requires decisions in the near-term or competitor nations will overtake the U.S. technology and garner the benefits which generally go to those who pioneer successful ventures. This is a trend which will become more prevalent in the future. Decision-makers will be unable to defer making hard decisions (like those associated with the Strategic Defense Initiative (SDI)) because the decisions are

so "far in the future."

Finally, the V-22 demonstrates that defense requirements will have a far greater chance of success if they can simultaneously be applied to military and civil uses. Procurement funding will be much easier to obtain if practical civil applications of the system are also attainable.

"Iron" or "Composite Material" Triangles

The V-22 program illustrates that future triangles may not be "iron." The triangles of Gordon Adams had to be "iron" for two fundamental reasons. Their iron walls had to protect and nurture the interest around which they were constructed while simultaneously fending off "outsiders and alternative perspectives."⁵⁵

Conversely, I suggest that the triangle which protects the V-22 program has been quite unlike Adams' iron version. The triangle around the V-22 has had to be permeable and flexible to guarantee the survival of its interest. In a sense, its walls are made of state-of-the-art composite materials much like the wings of the V-22 itself. The nature of future triangles will likely follow this pattern for three reasons.

Future communication means will continue to improve and it

will be increasingly difficult to isolate the interest of the triangle from the effects of alternative perspectives and conflicting ideas. Triangle members will not be able to easily censor information which might alter the support of the other members of the triangle. For example, close scrutiny of the V-22 program by various elements of the aviation community makes it virtually impossible for the contractor or the Marines to suppress unfavorable data that might influence Congress to stop funding the program. Similarly, through open communications, the members of defense triangles will be able to gain external supporters much like the V-22 triangle did by developing the Tiltrotor Technology Coalition.

Cooperation between groups with similar interests will become more commonplace. With fewer resources, those interested in defense will have to cooperate with other sectors of the government to ensure that defense requirements have as much civil application as possible. Emerging commercial and civilian transportation interest in tiltrotor technology is an example of this type of cooperation. Defense interests alone will not bring the V-22 program to a successful ending; emphasis from the civil/commercial side is vital.

Congestion of interest groups is growing at a significant rate. The phenomenal growth of PACs in the past ten years testifies to this fact. With so many interest groups vying for

funding and recognition, simple, concise triangular relationships are increasingly improbable. Martha Derthick, a political scientist at the University of Virginia, says that contemporary "iron triangles" are really "issue networks" because of interest group congestion.⁵⁶ Future triangles will be overlaid and interlaced with other interest triangles in complex relationships which will more likely resemble "stars of David" or "Maltese crosses."

Positive Aspects of Future Triangles

"Iron triangles" are regarded by many people as somewhat evil or troublesome entities bent on satisfying self-interest at the expense of others or without regard for the greater good. Hedrick Smith and Gordon Adams portray iron triangles in that light. In an Army War College lecture, Dr. Gary Guertner suggested that the negative, sinister side of defense iron triangles accounts for some of the ineffectiveness in our political system.⁵⁷ The triangle that has formed around the V-22, however, indicates that in the future, these triangular relationships may prove more beneficial than ominous.

First, the actions of the V-22 triangle prevented premature cancellation (by the Secretary of Defense in this case) of a military project of significant value. The Secretary's determination to cancel the program has increased the resolve of

triangle members to keep the program alive until it truly has demonstrated its military capabilities. With reduced resources in the future, competition for R&D and procurement funds for projects like V-22 will become more ruthless. It will be harder for good projects to get off the ground. Iron triangle relationships may provide critical protection to those projects in their formative stages.

Moreover, the V-22 triangle has also positively served the nation by preserving the framework on which non-military tiltrotor technology could be developed for transportation and trade. Had Mr. Cheney's purge of the program not been forestalled in 1989, commercial and civil agencies would not have had the chance to understand or begin planning for the economic and transportation application of tiltrotor technology. Defense triangles of the future similarly will be broadly defined and will more likely support projects which have application for a wider range of national interests than just defense.

PACs

Having examined the incredibly complex array of PACs supporting interest groups, I offer two general observations. First, I believe that because of the numbers of PACs today, it is impossible to say that one candidate or another is "bought and paid for" by a particular interest. Candidates for federal

office receive an average of about 50 percent of their total campaign funding from PACs and that percentage is expected to increase in the future. Because they are supported by so many diverse groups, candidates cannot be accused of being on the "payroll" of one particular group. Since they are beholden to so many, they are effectively beholden to none.

Second, I suggest that the disproportionate advantage PACs give to incumbents is a threat to the competitiveness of our election process. In these changing times, the nation more than ever needs political leaders with initiative and a strong sense of responsibility for the welfare of the nation. Without competition in the election process, the electorate is doomed to have congressional representation unresponsive to the needs of the nation and not eager to use initiative.

Service Interests

This case study suggests that the services will be under greater pressures in the future not to back out of procurement projects once undertaken--a situation that might not be in the best interest of the nation or the services. For example, if upon taking up his new assignment as Commandant in June 1991, General Carl Mundy had decided that the V-22 was not the best alternative for the Marines, he would have found it very difficult to reverse the inertia and momentum of the program. The resulting loss of the Commandant's credibility and prestige

among Marines, in the Congress, and with the contractor would have made such a decision extraordinarily controversial. In the face of those pressures, the service chief might have continued to support the program even though he did not believe that the aircraft was still the best choice.

This type of situation could easily occur in the future as costs rise, technological advances quicken, and budgets shrink. At a minimum, the services will have to make their procurement decisions carefully, work diligently at making the decisions successful, and have leaders with the courage to stop ineffective programs if they are discovered.

This case is also useful in illustrating some of the boundaries which define relationships between the service chiefs, the Secretary of Defense, and Congress. There are those who would suggest that the entire issue of the V-22 would never have developed had the Commandant not continued to unofficially support the program after the Secretary of Defense eliminated it from the Defense program. Without General Gray's support, the contractor would have pulled out and Congress likely would not have continued to support the project.

Several Marine Commandants have supported the V-22 through its difficult history because they believed in the aircraft and were unafraid to stand by their belief. General Gray

particularly should be recognized for his resolute (and courageous, given Mr. Cheney's feelings on the issue) position on the V-22. While never talking behind the Secretary's back, General Gray used all ethical and appropriate means to defend what he believed to be right. He exemplified the kind of leadership and character military officers are expected to evidence--the kind the civilian leadership in this country should prize highly. Without those qualities in its military leaders, the civilian leadership and the nation are poorly served.

Finally, some conclusions about the future of the V-22 are appropriate. The aircraft is a superb idea. It has survived because of its well-managed program, its potential to revolutionize vertical-lift aviation, and the favorable support that it enjoys with Marine Commandants and in Congress. The V-22 survives today because various defense iron triangle interests have nurtured it so that it can properly demonstrate its military potential. In so doing, those interests have opened the door to other ascending interests (commercial, trade, transportation) which are lending their support to the further evolution of this idea.

Although the V-22 iron triangle has fostered the survival of the program to this point, I do not think that triangle can guarantee the ultimate success of this tiltrotor program. I believe the costs of the program and conflicting defense and

commercial interests will preclude the total success of the program. I suggest that the V-22's future will follow a course similar to the one outlined below:

- The Phase II Development Program will prove the military efficacy of the aircraft in the next 18 months and the Navy will be required by Congress to begin procurement.

- The annual procurement levels will be the absolute minimum acceptable number because of the high unit cost (I suspect it to be over \$40 million per aircraft by 1994) and because the Navy will be buying the aircraft only for the Marines. Because of the high unit cost, service budget reductions, and other priorities, the Army and the Air Force will not opt to be part of the defense buy.

- The low procurement level will in turn drive up the unit cost and cause many small, specialty subcontractors (on which Boeing must rely for components) to not remain committed to the project for fear the program will eventually founder.

- With the minimal number of aircraft that the Marines acquire, they will be unable to utilize or train to the full advantage of the aircraft. Moreover, the Marine Corps will not have sufficient V-22s to take the place of the CH-46 helicopters which, in a few years, will be unsafe to fly. This will demand

that the Marine Corps use the CH-53E in roles for which it was not intended and buy "off-the-shelf" helicopters to fill the medium-lift void.

- Commercial buyers (foreign and national), although expressing an interest in the V-22 aircraft, will not buy the commercial variants in quantities large enough to have an effect on unit cost. Some suggest that investors will rush in to buy the aircraft after the first one rolls off the assembly line.⁵⁸ Others opine that significant commercial investment will not occur until some reasonable data (e.g. maintenance costs, fuel usage, safety, facility requirements, etc.) about the aircraft have been gathered.⁵⁹ I agree with the latter opinion and suggest that the military will have to fly the aircraft successfully for three to four years before other investors will be convinced of the aircraft's utility and commercial efficacy.

- Congressional proponents will seek to provide additional funding for the military and commercial development of the aircraft, but not enough of those in Congress who have "supported" the concept (e.g., Tiltrotor Technology Coalition) will be willing to "sacrifice" funding from their primary interests during resource-austere times. Congressional support will neither be sufficient nor concerted enough to markedly stimulate the program.

- Within ten years, large-scale, profitable tiltrotor manufacturing will be accomplished primarily by Japanese or European firms using technology purchased from the U.S.

Summary Conclusions

Embedded in the entire issue of interest groups, iron triangles, influence, etc. is the truth that this country exists so that the interests of individuals can be recognized and, to a certain extent, accommodated. As long as men are free to express themselves they will find ways to give voice to their feelings and seek ways to make their interests reality. Interests which are not expressed or pursued by those who hold them will never be realized.

It is for this reason that those who are involved in the planning of the military strategy for this nation must accept the fact that the interests of countless individuals and groups will make themselves felt in the formulation of that strategy. Military leaders must understand that the importance of national military strategy is not so sacrosanct that it cannot be influenced by local and narrowly focused interests of individuals and groups throughout America. To deny this fact is to not accept the nature of the people of this country.

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